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(54) Title: AUTOMATED MOLDING TECHNOLOGY FOR THERMOPLASTIC INJECTION MOLDING		
(57) Abstract A method for the automated optimization of an injection molding machine set-up process comprising injection molding one or more parts, inspecting the parts for defects, adjusting the injection stroke and/or the injection velocity and repeating the process until the defects are reduced. There is also disclosed a method comprising injection molding one or more parts, determining a mean injection pressure profile by measuring the injection pressure with the machine configured with a constant, desired injection velocity. Then the velocity profile is adjusted to reduce differences between the measured pressure and the mean pressure profile. A further method is disclosed wherein the kickback is calculated and adjusted from screw displacement, packing/holding time and pressure. Also disclosed is a method comprising injection molding one or more parts then determining the gate freeze time by incrementing the holding time and measuring the screw displacement.		